RC4449

Headquarters

December 13, 1984

Michigan Department of Resources
Surface Water Quality Division
P.O. Box 355
Plainwell, MI 49080
Attention: Mr. Fred Morley,
District Supervisor

Dear Mr. Morley:

Attached is a copy of a "Program for Effective Residuals Management" for Plainwell Paper Company Co. Inc. in response to Part 1A-8 of Permit No. MI0003794.

I trust this information meets the requirement of the permit, except for its timeliness for which I apologize.

Very truly yours,

PLAINWELL PAPER CO., INC.

George W. Lawton
Director
Research/Development

GWL:mlm

cc: GWL:84-232

Cc [illegible]

PROGRAM FOR EFFECTIVE RESIDUALS MANAGEMENT

(PERM)

Plainwell Paper Co. Inc. (PPCI) generates four types of non-toxic solid waste which are delivered to appropriately licensed landfills for disposal. Two of these wastes are codisposed with the solid waste from the Waste Water Treatment Plant. The other is handled separately. This PERM will consider all of the codisposed wastes.

PPCI generates bottom ash from its coal fire boilers, fly ash from the same sources and sludge from its Waste Water Treatment Plant. These are disposed together. The fourth waste is general mill trash which is handled separately.

All of the codisposed wastes have been analyzed for EP Toxicity leachate testing for appropriate parameters. None would be classified as toxic. The results of that testing are shown in Section III.

Section I.

I. Generation

a. Waste water sludge is produced in the Waste Water Treatment Plant. The plant uses primary sedimentation, coagulation, aeration, sludge recycle, settling and flotation as treatment methods. Two waste sludges are produced:

(1) Primary sludge, consisting principally of papermaking fibers (cellulose) and papermaking fillers (pigments, including kaolin clay, calcium carbonate, titanium dioxide, aluminum trihydrate and other inert pigments). Minor constiuents include trash and other contaminants.

(2) Secondary sludge consisting of insoluble biological residues principally bacterial organisms and a small portion of papermaking fibers and pigments.

b. Coal bottom ash is generated in three coal fired steam generating units. It is collected on grates at the boiler bottom and delivered to a storage silo by an air conveying system.

c. Coal fly ash is generated in the burning zone of the steam generators and is collected in air pollution control devices (multicyclone mechanical collectors). It is transported to a secondary collector by a steam conveying system. The secondary collector delivers the fly ash to a storage silo.

II. Codisposal Activities

a. Bottom ash is removed from the storage silo in a dump truck and temporarily stored on the ground. Normal storage times are one to two days and storage times do not exceed seven days. The ashes are then transferred to an over-the-road thirty cubic yard trailer, approximately fifteen cubic yards at a time. This procedure is used because the over-the-road trailer will not fit under the silo for direct dumping. The remaining volume of the trailer is then filled with waste water sludge to prevent any of the ash from being blown out of the trailer during transportation. Approximately fifteen cubic yards per day of coal bottom ash is generated.

b. Fly ash is dumped from its storage directly into an over-the-road trailer at the rate of about 15 cubic yards per trailer. It is, in turn, covered with about 15 cubic yards of waste water sludge for the same reason as bottom ash. Approximately 70 cubic yards per week of fly ash is generated.

c. Waste water sludge is generated as a wet solid cake, about 45% (35-55% range) solids on a double belt filter press. This material does not flow or lose water on standing. The portion not used to cover ashes is placed directly in over-the-road trailers for delivery to the landfill. Approximately 30,000 dry pounds per day (65 cubic yards wet) are generated.

III. Transportation

a. All codisposed solid wastes are hauled by James S. Harris, Contractor, Allegan, Michigan.

b. All general mill trash wastes are hauled by Industrial Waste Disposal, Division of Waste Management, Inc., Kalamazoo, Michigan.

c. No liquid wastes are hauled.

IV. Disposal

a. All solid wastes are delivered to Three Rivers West Side Landfill for disposal.

b. In the past, these wastes have been delivered to Orchard Hills Landfill, Watervliet, where the wastes have been qualified. This landfill would be our back-up disposal site in the event it is needed.

V. Contingency Plans

a. In the event solid waste materials can not be transported to the landfill for reasons beyond the control of PPCI, the following contingency plans can be implemented:

(1) Waste water sludge

(a) We can store more than five days production of secondary sludge in an aerated sludge storage tank.

(b) We can store 24 hours production of primary sludge in the primary clarifier plus an additional 24 hours in the agitated primary sludge storage tank.

(c) At least 4 thirty cubic yard trailers are on site and can be filled at any time. This will handle more than one days production.

(d) A 40 cubic yard storage bin is available for storage of thickened sludge.

(e) If additional storage were ever needed, sludge trailers would be dumped on a paved road belonging to PPCI (Cedar Street). A front end loader would subsequently be used to reload the sludge into the trailers. We estimate that six full trailers per day can be hauled to the landfill by our contractor without adding equipment.

(2) Fly Ash and Bottom Ash

Both kind of ashes would be piled at the

present bottom ash transfer point and retained there until hauling becomes possible.

b. In the event the hauler was incapable (for whatever reason) of moving the material, other waste hauling firms are available in the area and would be contracted.

c. In the event the landfills were unable to receive the waste, we are approved at Orchard Hills, Watervliet, and Cork Street, Kalamazoo (a Type III). Approval at Kent Landfill could be achieved in a short time if necessary.

Section II. Inventory of Residuals

See attached list.

Section III. Analysis of Residuals

See attached laboratory reports by KAR Labs.

Section IV. Monitoring Program

1. PPCI will continue to utilize the present disposal system unless a more economical approach is found. The district supervisor will be appraised of any changes.

2. PPCI will have each of the solid waste materiasl analyzed on an annual basis.

Section V. Land Application

PPCI is beginning the study of this disposal method. The project will be handled by a competent contractor who will take care of the details of the permit application.

Section VI. No Ground Water Degradation Potential Exists.

ATTACHMENT #1

Residuals Inventory

Month	Trailers	lb.dry sludge	Est. cu.yd.sludge	Est. cu.yd.ashes
Dec.'83	57	914,393	1320	400
Jan.'84	59	925,721	1500	270
Feb.	53	770,993	1170	420
Mar.	80	1,034,627	1980	420
Apr.	79	1,021,670	2010	360
May	66.5	1,050,100	1995	0
June	96	1,000,949	1935	945
July	68	898,350	1785	225
Aug.	70	974,152	1800	300
Sept.	60	806,038	1500	300
Oct.	71	1,079,953	1815	225
Nov.	63	887,199	1410	480
1 yr. total	822.5	11,424,145	20,220	4,435

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